

FEATURES

- Water flow sensor with brass body and temperature sensor.
- Temperature probe with 0.5°C accuracy (@25°C).
- Helicoidal rotor and Hall sensor measurement technology.
- Conformity with the CE directives.

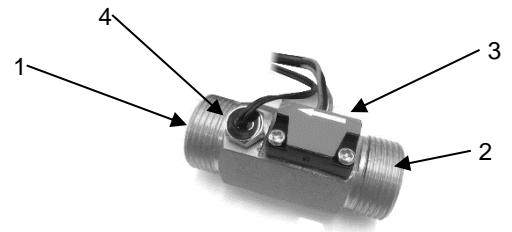


Figure 1. Water Flow Sensor with temperature probe

1. G½" output	2. G½" input	3. Flow sensor	4. Temperature probe
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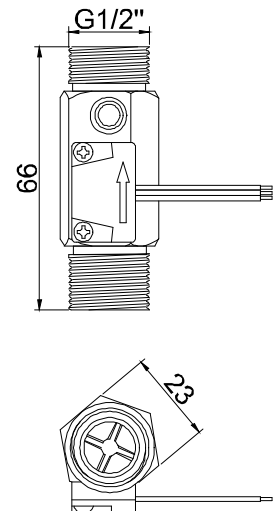
GENERAL SPECIFICATIONS	
CONCEPT	DESCRIPTION
Operation temperature	-20°C to +80°C
Storage temperature	-25°C to +80°C
Operation humidity	35% to 95% RH
Storage humidity	25% to 95% RH
Fluid pressure	Up to 17.5bar (1.75MPa)
Installation	In pipe in horizontal or vertical position
Weight	108g
Housing material	Brass

FLOW SENSOR SPECIFICATIONS AND CONNECTIONS	
CONCEPT	DESCRIPTION
Power supply voltage	5VDC
Maximum current consumption	15mA
Output type	Square pulse with duty cycle of 40..60%
Output frequency ¹	$f[\text{Hz}] = K/3600 \cdot Q[\text{l/h}]$
Water flow range ²	400 to 1500l/h
Accuracy	5%
Cable cross-section	0.34mm ² (IEC) / 22AWG (UL)
Cable length	0.5m
Wiring	Black=0VDC, Red=5VDC, Yellow=output signal

¹ To obtain the K-factor value please refer to the QR code supplied with the flow sensor.

² Using this sensor for flow rates lower than those specified in this datasheet is not advisable as the accuracy of the measurement may be compromised.

DIMENSIONS (mm)



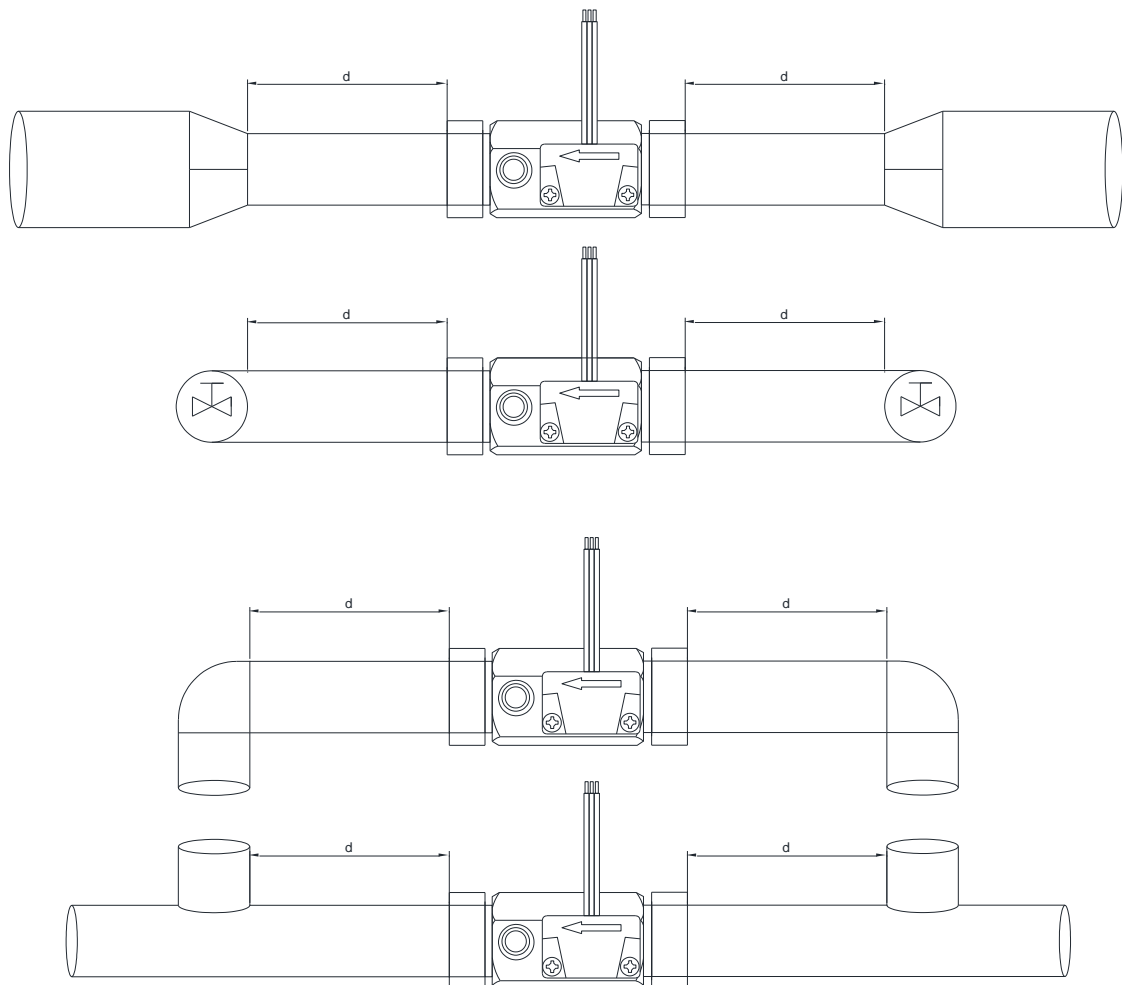
TEMPERATURE SENSOR SPECIFICATIONS AND CONNECTIONS	
CONCEPT	DESCRIPTION
Operation temperature	from -50°C to +80°C
Storage temperature	from -50°C to +80°C
Operation humidity	35 to 95% RH
Storage humidity	25 to 95% RH
Weight	8g
NTC Probe Diameter	M8x1.25
Housing	Epoxy resin and steel
Thermistor value (@25°C)	10kΩ
Accuracy (@25°C)	0.5°C
Cable cross-section	0.14mm ² (IEC) / 26AWG (UL)
Cable length	0.5m (up to 30m)

The temperature probe can be wired to any Zennio device input that allows being configured as a Zennio Water Probe or as a custom NTC (water) probe.

TEMPERATURE PROBE PARAMETERS			
TEMPERATURE (°C)	RESISTANCE (Ω)	TEMPERATURE (°C)	RESISTANCE (Ω)
-50.0	366410	20.0	12098
-45.0	270709	25.0	10000
-40.0	202269	30.0	8309
-35.0	152746	35.0	6940
-30.0	116508	40.0	5825
-25.0	89710	45.0	4911
-20.0	69693	50.0	4160
-15.0	54599	55.0	3539
-10.0	43117	60.0	3023
-5.0	34307	65.0	2541
0.0	27493	70.0	2209
5.0	22183	75.0	1901
10.0	18015	80.0	1652
15.0	14720		

INSTALLATION ADVICES

- In order to achieve a reliable measurement, it is necessary to avoid the presence of air in the pipe.
- Do not install the water flow sensor near a pump input.
- It is recommended to install the water flow sensor in the return pipe (for both cooling and heating circuits).
- To avoid measurement errors, please observe a distance of at least **20cm** (noted as "d" in the figures below) between the flow sensor and any irregularities in the pipeline.



SAFETY INSTRUCTIONS

- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- It must not be hit.
- The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at <http://zennio.com/wEEE-regulation>.